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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/622,357

07/17/2003

Hideo Kobayashi

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10/07/2005

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EXAMINER

HARAN, JOHN T

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/622,357

Applicant(s)

KOBAYASHI ET AL.

Examiner

John T. Haran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 11-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/23/04, 6/25/04, 10/21/04
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-10 in the reply filed on 9/22/05 is acknowledged. The traversal is on the ground(s) that there is no burden in search. This is not found persuasive because the scope of the method claims and the apparatus claims are different and require searches in different subclasses of class 156 that are not required of the others.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 1/23/04, 6/25/04, and 10/21/04 have been considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of curing adhesive between disc substrate, does not reasonably provide enablement for a method of curing adhesive between any two types of substrates. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make

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the invention commensurate in scope with these claims. The specification and figures are directed to curing adhesive between disc substrates and are not enabled for curing adhesive between any two types of substrates imaginable. It is suggested to amend the claims to specify disc substrates are being bonded.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the circumference". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitations "the internal circumference" and "the external circumference". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the high speed rotation". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Baggett et al (U.S. Patent 6,730,917).

Baggett et al discloses a method for curing adhesive between substrates wherein a light emitting diode (LED) array (semiconductor elements) emitting ultraviolet light onto an adhesive spread between two substrates through one of the substrates (See Figure 2; Column 2, lines 33-36 and Column 3, lines 30-52). Baggett et al anticipates claim 1.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Maenza (U.S. Patent 5,968,305).

Maenza discloses a method for curing adhesive between two disc substrates wherein a UV gas laser such as an excimer or YAG laser radiates ultraviolet let through one of the disc substrates to the adhesive to cure it (Column 3, lines 17-32). Maenza anticipates claim 1.

Regarding claim 5, Maenza teaches radiating the assembly while the assembly is moved relative to the light (Column 3, lines 33-43).

Regarding claim 6, Maenza teaches the substrates are for optical recording medium and accordingly have a recording layer and further teaches radiating the

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adhesive from the inner circumference to an outer circumference (Column 3, lines 44-46).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baggett et al (U.S. Patent 6,730,917), as applied above to claim 1 or Maenza (U.S. Patent 5,968,305), as applied above to claim 1.

Baggett et al and Maenza are relied upon for the teachings noted above.

Regarding claim 2, Baggett et al and Maenza are silent towards whether the uv transmissivity of the adhesive lowers after curing, it is well known and conventional in the art that adhesives have a lower uv transmissivity after being cured. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use conventional adhesives in the methods of Baggett et al and Maenza.

Regarding claim 3, Baggett et al and Maenza are silent towards the uv light being radiated in the range of 280 to 450nm, however such is within the uv range and the particular wavelength utilized would have depended upon the materials worked upon. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the necessary wavelength range for the uv radiation in the methods of Baggett et al and Maenza.

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Regarding claim 4, Baggett et al and Maenza are silent towards the distance between the uv light source and the substrate, however one skilled in the art would have had the mechanical skill to determine the desired distance to optimize the curing process. It would have been obvious to do so in the methods of Baggett et al or Maenza.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maenza (U.S. Patent 5,968,305), as applied above to claim 1, in view of Miyamoto et al (U.S. Patent 6,309,485).

Maenza is silent towards performing two ultraviolet irradiation steps and transferring the assembly between steps, however such is well known and conventional in the optical disc bonding art, as shown for example in Miyamoto et al (See Figure 1; Column 8, lines 35-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform two ultraviolet irradiation steps and transferring the assembly between steps in the method of Maenza, as such is conventional.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maenza (U.S. Patent 5,968,305), as applied above to claim 1, in view of Kanashima (U.S. Patent 6,231,705).

Maenza teaches radiating the adhesive from the inner circumference to the outer circumference (Column 3, lines 44-46), but is silent towards rotating the substrates at

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high speed to spread the adhesive and then to cure the adhesive with ultraviolet radiation, however such is well known and conventional, as shown for example in Kanashima et al (See Column 12, lines 35-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to rotate the substrates at high speed to spread the adhesive and then to cure the adhesive with ultraviolet radiation from the inner circumference to the outer circumference in the method of Maenza.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maenza (U.S. Patent 5,968,305), as applied above to claim 1.

Maenza is silent towards curing the adhesive between the optical disc substrates in a reduced oxygen atmosphere, however such is well known and conventional in the optical disc art by introducing an inert gas. It would have been obvious to one of ordinary skill in the art at the time the invention was made to cure the adhesive in a reduced oxygen atmosphere in the method of Maenza, as such is conventional in the art.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maenza (U.S. Patent 5,968,305), as applied above to claim 1, in view of Ohno et al (U.S. Patent 6,613,170).

Maenza is silent towards curing the adhesive after detecting the thickness has been reduced to a preset thickness by high speed rotation, however such is well known



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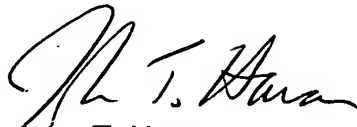
and conventional in the disc bonding art as shown for example by Ohno et al (See Figures 14 and 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to cure the adhesive after detecting the thickness has been reduced to a preset thickness by high speed rotation in the method of Maenza as such is conventional.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John T. Haran whose telephone number is (571) 272-1217. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John T. Haran  
Primary Examiner  
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